

Immersion Fluid for Immersion Lithography, and Method of Performing Immersion Lithography

ABSTRACT

An immersion lithographic system 10 comprises an optical surface 51, an immersion fluid 60 with a pH less than 7 contacting at least a portion of the optical surface, and a semiconductor structure 80 having a topmost photoresist layer 70 wherein a portion of the photoresist is in contact with the immersion fluid. Further, a method for illuminating a semiconductor structure 80 having a topmost photoresist layer 70 comprising the steps of: introducing an immersion fluid 60 into a space between an optical surface 51 and the photoresist layer wherein the immersion fluid has a pH of less than 7, and directing light preferably with a wavelength of less than 450 nm through the immersion fluid and onto the photoresist.